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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,257	06/14/2002	Toru Sakuragawa	MAT-8212US	8402

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EXAMINER

LAUTURE, JOSEPH J

ART UNIT PAPER NUMBER

2819

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/049,257

Applicant(s)

SAKURAGAWA ET AL.

Examiner

Joseph Lauture

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-8 and 12-14 is/are rejected.
- 7) ☐ Claim(s) 2-4 and 9-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### *Specification*

The application has not been checked to the extent necessary to determine the presence of all possible typographical and grammatical errors. Applicant's cooperation is requested in correcting any errors of which he/she may become aware in the application.

The Information Disclosure Statements filed 02/08/02 have been considered.

### **Drawing Objections**

Figures (13) and (14) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6,12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, line 3 and claim 13, line 2, it is unclear what is meant by "...is the SAW filter, in the SAW filter.... Clarification is required.

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In claim 12, lines 3-4, it is unclear what is meant by "having different passing bands each other...". Clarification is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 is rejected as being anticipated by Ikata et al (US 6,380,823).

Ikata et al teach in figure (5) a multi-frequency antenna duplexer comprising a package, and a plurality of antenna duplexers (ANT1), (ANT2) having different passing bands from each other (See abstract, lines 2-3), wherein each of said plurality of antenna duplexers includes a transmitter surface acoustic wave (SAW) filter and a receiver SAW filter in each chip, the two filters have different passing bands and formed on a piezoelectric substrate (See column 8, lines 9-12).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5,8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikata et al (US 6,380,823) in view of Penunuri (US 6,424,238).

Regarding those claims, Ikata et al teach the essential features of the claimed invention as set forth above except for a method of combining a SAW filter and a bulk (BAW) filter on the same substrate. However, Penunuri teaches in figure (4) an acoustic wave filter apparatus and method that make use of both SAW and BAW filters. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Penunuri into the filter apparatus of Ikata et al to improve system performance and reliability because this would provide superior rejection of undesired frequency components while maintaining a low insertion loss (See column 1, lines 33-37). It would have been further obvious to provide circuitry for coupling the antenna terminals of the duplexers to complete the filter.

#### Allowable Subject Matter

Claims 2-4 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and amended to overcome the U.S.C 112 2<sup>nd</sup> paragraph set forth in this office action.

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### CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Lauture, whose telephone number is (703) 308-6362. The examiner can normally be reached Monday to Friday between 9:30 am and 6:00 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached at (703) 305-3493. The fax number for the organization to which this application is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0956.

Joseph Lauture  
Art Unit: 2819  
Date: 09/25/2003



Brian Young  
Primary Examiner